

ABSTRACT OF THE DISCLOSURE

A misalignment detector includes a light source, a synthesizing unit, a focusing unit, an image sensor, and a misalignment calculator. The light source, the synthesizing unit, the focusing unit, and the image sensor are arranged in such a manner that light illuminated by the light source passes through the synthesizing unit so as to illuminate the position detection pattern, gets reflected from the position detection pattern, passes through the synthesizing unit so as to be focused by the focusing unit on the image sensor. A misalignment calculator detects an amount of misalignment of the laser beams based on an image formed in the image sensor.